

# **EXHIBIT 8**

## ANNOUNCEMENTS

# containerd joins the Cloud Native Computing Foundation

*Foundation fostering cross-project collaboration and growth of cloud native ecosystem **BERLIN***  
**– CloudNativeCon + KubeCon Europe – March 29, 2017 –**

The **Cloud Native Computing Foundation** (CNCF), which is sustaining and integrating open source technologies to orchestrate containers as part of a microservices architecture, today announced **containerd** – Docker’s core container runtime – has been accepted by the **Technical Oversight Committee** (TOC) as an incubating project alongside projects Kubernetes, gRPC and more. Docker’s acceptance into the CNCF comes three months after Docker, with support from the five largest cloud providers, announced its intent to contribute the project to a neutral foundation in the first quarter of this year.

“It’s important for CNCF to host foundational technology for cloud native computing,” said Dan Kohn, Executive Director of the Cloud Native Computing Foundation. “The containerd runtime is incredibly important to the growth of the overall cloud native ecosystem and uniting it with Kubernetes and CNCF will bring huge benefits to end user solutions. Container orchestrators need community-driven container runtimes and we are excited to have containerd which is used today by everyone running Docker. Becoming a part of CNCF unlocks new opportunities for broader collaboration within the ecosystem.”

containerd (Con-tay-ner-D) has been extracted from Docker’s container platform and includes methods for transferring container images, container execution and supervision and low-level local storage, across both Linux and Windows. containerd is an essential upstream component of



the Docker platform used by millions of end users and also provides the industry with an open, stable and extensible base for building non-Docker products and container solutions.

“Our decision to contribute containerd to the CNCF closely follows months of collaboration and input from thought leaders in the Docker community,” said Solomon Hykes, founder, CTO and Chief Product Officer at Docker. “Since our announcement in December, we have been progressing the design of the project with the goal of making it easily embedded into higher level systems to provide core container capabilities. Our focus has always been on solving users’ problems. By contributing containerd to an open foundation, we can accelerate the rate of innovation through cross-project collaboration – making the end user the ultimate benefactor of our joint efforts.”

The contribution of containerd aligns with Docker’s history of making key open source plumbing projects available to the community. This effort began in 2014 when the company open sourced **libcontainer**. Over the past two years, Docker has continued along this path by making **libnetwork**, **notary**, **runC** (contributed to the Open Container Initiative, which like CNCF, is part of The Linux Foundation), **HyperKit**, **VPNKit**, **DataKit**, **SwarmKit** and **InfraKit** available as open source projects as well.

containerd is already a key foundation for Kubernetes, as Kubernetes 1.5 runs with Docker 1.10.3 to 1.12.3. There is also strong alignment with other CNCF projects: containerd exposes an API using **gRPC** and exposes metrics in the **Prometheus** format. containerd also fully leverages the Open Container Initiative’s (OCI) runtime, image format specifications and OCI reference implementation (**runC**), and will pursue OCI certification when it is available.



Figure 1: containerd's role in the Container Ecosystem

## Community consensus leads to technical progress

In the past few months, the containerd team has been active implementing **Phase 1 and Phase 2 of the containerd roadmap**. Details about the project can be charted in the **containerd weekly development reports** posted in the Github project.

At the end of February, Docker hosted **the containerd Summit** with more than 50 members of the community from companies including Alibaba, AWS, Google, IBM, Microsoft, Rancher, Red Hat and VMware. The group gathered to learn more about containerd, get more information on containerd's progress and discuss its design. To view the presentations, check out the **containerd summit recap blog post: Deep Dive Into Containerd** by Michael Crosby, Stephen Day, Derek McGowan and Mickael Laventure (Docker), **Driving Containerd Operations With GRPC** by Phil Estes (IBM) and **Containerd and CRI** by Tim Hockin (Google).

The target date to finish implementing the **containerd 1.0 roadmap** is June 2017. To contribute to containerd, or embed it into a container system, check out **the project on GitHub**. If you want to learn more about containerd progress, or discuss its design, join the team in Berlin in March at KubeCon 2017 for the containerd Salon, or Austin for DockerCon Day 4 Thursday April 20th, as the Docker Internals Summit morning session will be a containerd summit.

## Additional containerd Resources:

- **Roadmap**
- **Scope table**
- **Architecture document**
- **Draft APIs**

## Additional CNCF Resources

- **Learn About CNCF Membership**
- **CNCF blog**
- **Join the CNCF conversation on Slack**

## About Cloud Native Computing Foundation

Cloud native computing uses an open source software stack to deploy applications as microservices, packaging each part into its own container, and dynamically orchestrating those containers to optimize resource utilization. The Cloud Native Computing Foundation (CNCF) hosts critical components of those software stacks including Kubernetes, Fluentd, Linkerd, Prometheus, OpenTracing, gRPC, CoreDNS, containerd, and rkt; brings together the industry's top developers, end users, and vendors; and serves as a neutral home for collaboration. CNCF is part of The Linux Foundation, a nonprofit organization. For more information about CNCF, please visit: <https://www.cncf.io/>.

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